DOCUMENT RESUME

ED 165 111 CS 004 604

AUTHOR Dwyer, Edward J.
TITLE Investigating the Effectiveness of MRM Instruction on Improving Comprehension of Paragraphs.
PUB DATE 78
NOTE 8p.; Paper presented at the Annual Meeting of the National Reading Conference (28th, St. Petersburg Beach, Florida, November 30-December 2, 1978)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Comprehension Development; Higher Education; *Reading Comprehension; *Reading Instruction; *Reading Research; *Study Skills; Teaching Techniques

ABSTRACT

A study of the effects of using the MRM (message unit--verb unit--message unit) instructional system on reading comprehension was studied using 69 college freshmen, 37 in an experimental group and 32 in a control group. Both groups were engaged in a variety of activities designed to promote greater reading efficiency as a regular part of their course work. In addition to the regular reading program, the experimental group worked during part of the class time with the MRM system. The procedures required the experimental group to read a selection of approximately 150 words from a text and peruse the selection for three words or short phrases (message units) they determined to be important to the essential message contained in the selection. The units were then used as the major part of a sentence containing a main idea in the selection, and the contents of the main idea sentence became the basis for determining the MRM unit that appeared to be the central idea relative to the message as a whole. Comprehension gains were determined through pre- and posttest administration. No substantial differences were found favoring the experimental subjects. (TJ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED165111

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Edward J. Dwyer, Ph.D.
Assistant Professor, Dept. of Curriculum and Instruction
East Tennessee State University
Johnson City, Tenn. 37601
Telephone (615) 929-4209

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Edward J. Dwyer

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Paper Presented at the Twenty-eighth Annual Meeting

National Reading Conference, 2 December 1978

INVESTIGATING THE EFFECTIVENESS OF MRM INSTRUCTION ON IMPROVING COMPREHENSION OF PARAGRAPHS

by Edward J. Dwyer, Ph.D.

East Tennessee State University

The purpose of this paper is to present an analysis of and a description of an instructional system designed to encourage reading comprehension through application of the MRM approach. Mellichamp (1977) introduced the MRM concept over sentences as a strategy for improving reading comprehension. For purposes of this study, the MRM theory was adapted and applied over individual paragraphs and selections of several paragraphs. In this context, an MRM unit is defined as an important idea having three component parts contained within a larger message: part one is a message unit which can be a single word or short phrase, part three is another similar message unit while part two is a verbal unit which establishes the relationship of the two message units. For example: M bears - R eat - M berries. The density of MRM units within different selections varies based on concept intensity.

The subjects over which the paragraph oriented MRM system was utilized were students in a three quarter hour elective course called Reading Improvement.

CS004604

The subjects in both the experimental (N=37) and control (N=32) groups were predominently first quarter freshmen. Both the control and experimental groups engaged in a variety of activities designed to promote greater reading efficiency as a regular part of their course work. In addition to the regular reading program, the experimental group worked during part of the class time with the MRM system during 15 sessions of approximately 15 minutes each over a five week period.

The following basic procedures for working with the MRM construct were followed during the first half of the five week period. The procedures then continued but with the elimination of step two which was considered no longer essential due to the evident capabilities of the students.

1. The students read a selection of approximately 150 words from the text, Six Way Paragraphs (Pauk, 1974).

2. After reading, the students would peruse the selection and then list three words or short phrases (message units) that they determined to be important to the essential message contained in the selection.

3. The selected message units would then be used as the major part of a sentence containing a main idea contained in the selection.

4. Contents of the main idea sentence would then be used as the basis for determining the MRM unit which appeared to be the central idea relative to the message as a whole. The MRM construction based on the steps above would also be classified as an "essential unit of meaning" (EUM) or a core idea.

RESULTS

Gains in comprehension were determined through pre and post administration of alternate forms of a test constructed from eight selections from two texts in the Timed Readings series. Form A and Form B of the measure were designed with two selections each from levels seven and eight in the series. There were 10 items accompanying each selection giving each form a total of 40 items through which comprehension was tested. Through application of the Fry Readability Formula (Fry, 1968) it was estimated that Form A and Form B were of approximately the same level of difficulty, ie: grade equivalencies 10 through college. However, through two way factor analysis of variance it was determined that Form A was substantially more difficult than Form B ($F=14.592$; $P<.001$). On the other hand, mean gain scores of the control and experimental group were found to be similar ($F=2.123$; $P=.15$). Further there was no significant interaction between the group factor and the test form factor ($F=.877$; $P=.35$).

DISCUSSION

Although analysis of the data yielded no substantial differences favoring those subjects within the experimental group, observational input suggests that the MRM procedure can be used beneficially within the context of a course designed to improve reading achievement. Students capabilities in determining main ideas appeared to improve as evidenced through analysis of class work. Further, the students' apparent ease in constructing main idea sentences after just several sessions also provides supporting evidence as to effects of the program on improving reading comprehension. It was for

this reason that step two, ie: designation of three important words or phrases, was eliminated. It was observed that students frequently constructed important MRM units among the first three items in step two. For example, the constructions designed by Jenifer, a first quarter freshman, illustrated this point. The work was done over the selection "What About Frost" taken from Six-Way Paragraphs (Pauk, 1974):

> "Wind -- even the slightest of breezes - can prevent frost. That's because wind is like a spoon in your cup of tea: it stirs things around and brings down a lot of the warm air that often floats just above housetops and trees. It may seem odd but ice itself sometimes can protect crops from frost! Some growers actually spray their crops with water on a freezing night. Water freezes quickly on the plants - and then a strange thing happens. As long as ice stays wet, it can't get colder than 32 degrees, a temperature many plants can stand. If the ice ever became entirely frozen and dry, it might drop many degrees lower, ruining the plants. But by continually spraying water on the ice, the growers keep it from going below 32 degrees even if the air is much colder. This may frustrate Jack Frost, but it saves the plants.
>
> This strange kind of "ice blanket" works only on plants that are strong enough to stand the weight of frozen spray. The system is used even to protect banana plants on some Central American plantations "[p. 18].

When including the three words or phrases: Jenifer wrote: 1) "wind prevents frost," 2) "ice protects plants," and 3) "ice blanket." Her main idea sentence was: "By continuously spraying water on plants, the temperature will remain 32 degrees even on the coldest nights." And for the core MRM unit she wrote: "Ice saves plants." Jenifer's constructions appear typical of those of many students. At the outset of the instructional program, students were advised that the MRM construction could contain only three words

but this was later modified as it appeared to be appropriate to accept short phrases as individual message units.

CONCLUSIONS

Application of the MRM instructional system appears to be valuable in improving reading comprehension despite the fact that no significant differences were found between the experimental and control groups. The instructional period of fifteen rather short sessions undoubtedly was much too short to establish a substantial difference in approaches to finding core ideas. Further, the instrument used for pre and post testing was probably not sensitive enough to detect differences over this period as it would be difficult to find any test for such purposes. Continued exploration with the MRM system is advised in that longer peroids of evaluation of its use at a variety of instructional levels might well yield positive results relative to improved reading competence. Further, observational data suggests that use of a variety of materials seems preferable to using the same type of material at each session. Also, it appears that spreading the sessions over a longer period of time might be more conducive to gains in competence rather than by working with the system at every class session for a shorter period of time. For example, over a semester students might work on this MRM system during one weekly session. Overall analysis of results and observational input suggests that the MRM system for improving comprehension appears to be an area where further research could contribute to further defining ways for helping students to improve their reading co rehension.

REFERENCES

Fry, Edward. A Readability Formula that Saves Time. Journal of Reading, 1968.

Mellichamp, Elliott. Investigating the Nature of Main Idea of Sentence to Improve Comprehension of College Textbooks. Paper presented at the twenty-seventh annual meeting, National Reading Conference, 2 December 1977.

Pauk, Walter. Six-Way Paragraphs. Providence, R. I.: Jamestown Publishers, 1974.

Spargo, Edward and Williston, Glenn R. Timed Readings. Providence, R. I.: Jamestown Publishers, 1975.

Investigating the Effectiveness of MRM Instruction on Improving Comprehension of Paragraphs

Edward J. Dwyer
Assistant Professor, East Tennessee State University

ABSTRACT

The MRM concept was adapted in this study to examine its effectiveness as an instructional system for encouraging students to ascertain main ideas within paragraphs. Students read paragraphs and then attempted to devise MRM units from the message. For purposes of this study, an MRM unit was defined as an important idea having three component parts contained within a larger message: part one is a message unit which can be a single word or short phrase; part three is another similar message unit; part two is a verbal unit which establishes the relationship of the previously selected message units. For example: M bears - R eat - M berries.

Pre and post testing yielded no significant differences in performance between the control and experimental groups. However, experimental conditions suggested that the time allotted and the testing procedures used did not provide an adequate system for determining the effectiveness of the program through statistical analysis. On the other hand, observational input suggested that the instructional system provided students with an opportunity for developing greater efficiency in determining essential information contained within larger bodies of information.